

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
PORTLAND DIVISION

NORTHWEST ENVIRONMENTAL
ADVOCATES, a non-profit corporation,

Plaintiff,

Case No. 3:05-cv-01876-AC

v.

OPINION AND ORDER

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, a United States
Government Agency; NATIONAL MARINE
FISHERIES SERVICE, a part of the National
Oceanic and Atmospheric Administration, a
part of the United States Department of
Commerce; UNITED STATES FISH AND
WILDLIFE SERVICE, a part of the United
States Department of the Interior,

Defendants,

STATE OF OREGON; and NORTHWEST
PULP AND PAPER ASSOCIATION,

Intervenor-Defendants.

ACOSTA, Magistrate Judge:

Plaintiff challenges decisions made by federal agencies related to the State of Oregon's water quality standards. Plaintiff has filed two Motions for Partial Summary Judgment [207 and 212] and

defendants have filed Cross-Motions for Partial Summary Judgment [254 and 260]. These motions request summary judgment on all claims in plaintiff's Second Amended Complaint. For the following reasons, plaintiff's Motion for Partial Summary Judgment on the Endangered Species Act claims [207] is granted, plaintiff's Motion for Partial Summary Judgment on the Clean Water Act claims [212] is granted in part and denied in part, defendants' Cross-Motion for Partial Summary Judgment on the Endangered Species Act claims [254] is denied, and defendants' Cross-Motion for Summary Judgment on the Clean Water Act claims [260] is granted in part and denied in part.

Standards

Summary judgment is appropriate "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." FED. R. CIV. P. 56(a) (2011). When reviewing an agency's final decision, the court's duty on summary judgment is to determine whether the evidence in the administrative record permitted the agency to make that decision as a matter of law. *Occidental Eng'g Co. v. INS*, 753 F.2d 766, 769-70 (9th Cir. 1985). This review is governed by the Administrative Procedure Act's arbitrary and capricious standard. 5 U.S.C. § 706(2)(A) (2006); *Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1235 (9th Cir. 2001) (challenging biological opinion and incidental take statement); *Am. Wildlands v. Browner*, 260 F.3d 1192, 1196 (10th Cir. 2001) (reviewing approval of water quality standards).

The court may set aside an agency action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). To determine whether an agency decision is arbitrary and capricious, the court should "consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989). After considering the relevant factors, the agency must articulate a satisfactory explanation for its action, including a rational connection

between the facts found and the agency's conclusions. *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1193 (9th Cir. 2008); *Nw. Ecosystem Alliance v. U.S. Fish & Wildlife Serv.*, 475 F.3d 1136, 1145 (9th Cir. 2007) (citation omitted).

An arbitrary and capricious finding is necessary if the agency "relied on factors Congress did not intend it to consider, entirely failed to consider an important aspect of the problem, or offered an explanation that runs counter to the evidence before the agency or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Lands Council v. McNair*, 629 F.3d 1070, 1074 (9th Cir. 2010). Review under this standard is narrow, and the court may not substitute its judgment for the judgment of the agency. *Id.* The court must be "at its most deferential" when reviewing an agency's scientific determinations. *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 103 (1983).

BACKGROUND

I. Overview

Plaintiff is a non-profit environmental organization challenging three federal agencies for decisions related to water quality standards for the State of Oregon. Plaintiff brings suit under the Federal Water Pollution Control Act (commonly known as the Clean Water Act ("CWA")), 33 U.S.C. § 1251(a) *et seq.*, the Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.*, and the Administrative Procedure Act ("APA"), 5 U.S.C. § 701 *et seq.* Plaintiff specifically challenges the Environmental Protection Agency's ("EPA") review and approval of Oregon's water quality standards, and the final decisions of the Fish and Wildlife Service ("FWS") and the National Marine Fisheries Service ("NMFS") (collectively "the Services") concluding that EPA's approval of the water quality standards was not likely to jeopardize fish listed as threatened or endangered under the ESA. The parties have cross-moved for summary judgment on all thirteen claims in plaintiff's

Second Amended Complaint. Defendants have not challenged plaintiff's standing to bring any of these claims.

II. Overview of the CWA

The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The CWA requires each state to develop water quality standards for all waterbodies within its jurisdiction. *Id.* at § 1313(a). These water quality standards designate specific uses for the waters involved, and then establish numeric and narrative water quality criteria in order to protect those uses. *Id.* at § 1313(c)(2).

Each state must review and appropriately modify its water quality standards at least once every three years and submit those revised standards to the EPA. *Id.* at § 1313(c)(1). The EPA must then review the water quality standards and approve those standards that meet the requirements of the CWA. *Id.* at § 1313(c)(3). If the EPA rejects the revised water quality standards, the state has ninety days to further revise its water quality standards. *Id.* If the state fails to act within ninety days, the EPA shall "promptly prepare and publish" proposed water quality standards for the state. *Id.* at § 1313(c)(4).

Each state is also required to identify all of the waters within its borders that do not meet water quality standards and establish total maximum daily loads ("TMDLs") for those waters. *Id.* at § 1313(d). A TMDL defines the specified maximum amount of a pollutant which can be discharged into the waters from all combined sources without violating water quality standards. *Dioxin/Organochlorine Ctr. v. Clarke*, 57 F.3d 1517, 1520 (9th Cir. 1995). The states must submit their § 1313(d) lists to the EPA for its approval or disapproval. 33 U.S.C. § 1313(d)(2). If the EPA disapproves either the § 1313(d) list or any TMDLs, the EPA must put together the disapproved documents itself, and the state must incorporate those documents into its planning process. *Id.*

III. Overview of the ESA

The purposes of the ESA are to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved," and "to provide a program for the conservation" of such species. 16 U.S.C. § 1531(b). The FWS is required to maintain lists of endangered and threatened species. *Id.* at § 1533(c)(1).

Section 7(a)(2) of the ESA requires federal agencies to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification" of such species' critical habitat. *Id.* at § 1536(a)(2). Whenever a federal agency, such as the EPA, determines that a proposed action "may affect listed species or critical habitat," that agency must prepare a biological assessment on the effects of the action and consult with the Services to determine whether the agency action is likely to result in jeopardy to that species or its critical habitat. 50 C.F.R. § 402.14(a); 16 U.S.C. § 1536(a). Once consultation is initiated, the Services are responsible for reviewing all relevant information and formulating a biological opinion ("BiOp") as to whether the action is likely to result in jeopardy to a listed species. 50 C.F.R. § 402.14(g).

In making this determination, the EPA must provide the Services with a biological assessment, and the Services "shall use the best scientific and commercial data available." 50 C.F.R. § 402.14(a); 16 U.S.C. § 1536(a). If the Services determine that an agency's action is likely to jeopardize the continued existence of a listed species, the Services must suggest reasonable and prudent alternatives to the proposed action, if any exist, that would not result in such jeopardy. 16 U.S.C. § 1536(b)(3).

If the Services conclude that a proposed action is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat,

but determines that the action will nevertheless result in the take of listed species, the Services must issue an incidental take statement ("ITS"). *Id.* at § 1536(b)(4). An ITS authorizes the limited take of listed species that would otherwise violate § 9's "take" prohibition, establishes the limit of any taking of the species, and specifies measures to minimize take. *Id.*; 50 C.F.R. § 492.14(i). If during the course of the subject action, the amount or extent of incidental take is exceeded, the action agency must reinitiate formal consultation pursuant to § 7(a)(2). 50 C.F.R. § 402.16(a).

IV. Factual Background

According to plaintiff, several waterways in Oregon provide "some of the last remaining habitat for at least fourteen 'Evolutionarily Significant Units' ("ESUs") of salmon and steelhead listed as threatened or endangered under the ESA, as well as two distinct population segments ("DPSs") of bull trout listed as threatened." Pl.'s Corrected Mem. at 3.

In 1996, the State of Oregon adopted revisions to its temperature and intergravel dissolved oxygen ("IGDO")¹ water quality criteria under the CWA and submitted those revisions to the EPA for approval. NMFS 2; FWS 105.² The EPA engaged in consultation with the Services, and received a BiOp from each agency concluding that the proposed action was not likely to jeopardize the species named in the EPA's biological assessment. *Id.* The EPA approved Oregon's revisions in part, but rejected the temperature criterion for salmonid migration and rearing in the Lower Willamette River. NMFS 275; FWS 419. Oregon took no action within ninety days of the EPA's rejection, and the EPA did nothing to promulgate its own criterion.

¹ "A dissolved oxygen standard measures the amount of oxygen in the water between gravels in a riverbed." *Nw. Envtl. Advocates v. U.S. E.P.A. (NWEA I)*, 268 F. Supp. 2d 1255, 1268 (D. Or. 2003). A higher IGDO standard is more protective of threatened salmonid embryos. *Id.*

² The EPA, FWS, and NMFS each submitted an administrative record. The administrative record submitted by each agency is referenced by citations to the initials of the relevant agency.

Following a lawsuit filed by plaintiff, this court ordered the EPA to promulgate its own revised water quality standards and an antidegradation plan for Oregon's waters. *NWEA I*, 268 F. Supp. 2d at 1265. This court held that the EPA's approval of certain water quality criteria was arbitrary and capricious, and held that the NMFS's determination that the revised water quality standards would not jeopardize listed salmonid species was also arbitrary and capricious. *Id.* at 1265-73. In April of 2003, a workgroup convened by the EPA published a guidance document regarding temperature guidelines for coldwater salmonids in the Pacific Northwest (hereinafter referred to as the "Temperature Guidance"). On October 10, 2003, the EPA published *EPA's Proposed Rule for Water Quality Standards for the State of Oregon*, 68 Fed. Reg. 58,758. The proposed rule was never finalized and on December 10, 2003, Oregon promulgated revised water quality standards for temperature, IDGO, and antidegradation and submitted them to the EPA for approval. EPA 6.

Pursuant to the ESA, the EPA initiated formal consultation with the Services regarding the potential impacts of the EPA's approval of Oregon's revised water quality standards on listed salmonid species. *See* NMFS 2; FWS 2. The Services each prepared BiOps concluding that the effects of the EPA's approval were not likely to jeopardize the continued existence of listed salmonid species nor destroy or otherwise adversely modify their designated critical habitat. *Id.*

The FWS BiOp concluded that the action was not likely to jeopardize the continued existence of bull trout, Lahontan cutthroat trout, Oregon chub, Warner sucker, Lost River sucker, Shortnose sucker, and Modoc sucker. *See* FWS 2. Plaintiff challenges the FWS's decision as to bull trout only. The NMFS BiOp made the same conclusions as to fourteen ESUs of salmon and steelhead species.³

³ Snake River fall chinook salmon, Snake River spring/summer chinook salmon, Snake River sockeye salmon, Snake River steelhead, Lower Columbia River chinook salmon, Upper

NMFS 2. The NMFS also concluded that the proposed action was not likely to destroy or adversely modify designated critical habitat for the four ESUs for which critical habitat has been designated.⁴

Id.

On March 2, 2004, the EPA approved Oregon's revised water quality standards. EPA 1. On December 13, 2005, plaintiff filed this action seeking judicial review of the EPA's decision to approve Oregon's revised water quality standards and the Services' "no jeopardy" BiOps.

Analysis

I. CWA Claims

Plaintiff brings eleven claims under the CWA arising from the EPA's approval or failure to act upon Oregon's revised water quality standards. The claims are addressed in the order presented in the parties' briefing.

A. Oregon's Nonpoint Source Provisions

Plaintiff's First and Second Claims for Relief allege that the EPA violated its mandatory duty under the CWA by not reviewing Oregon's nonpoint source provisions. These provisions define what Oregon's nonpoint sources of pollution must do, or as the case may be not do, in order to comply with applicable water quality standards. Plaintiff contends that these provisions create broad exemptions for the most significant sources of pollution in Oregon's waters, including agriculture, forestry, and grazing. Plaintiff's First Claim for Relief alleges that the challenged provisions are in

Columbia River spring chinook salmon, Upper Willamette River chinook salmon, Columbia River chum salmon, Southern Oregon/Northern California coasts coho salmon, Oregon coast coho salmon, Middle Columbia River steelhead, Lower Columbia River steelhead, Upper Willamette River steelhead, and Upper Columbia River steelhead.

⁴ Southern Oregon/Northern California coasts coho salmon, Snake River fall chinook salmon, Snake River spring/summer chinook salmon, and Snake River sockeye salmon.

fact water quality standards and that the EPA, by failing to review them, has violated its mandatory duties under 33 U.S.C. § 1313(c)(3). Plaintiff's First Claim for Relief arises under the citizen suit provisions of the CWA allowing suit the EPA's alleged failure to perform a nondiscretionary duty. 33 U.S.C. § 1365 (a)(2). Plaintiff's Second Claim for Relief offers an alternative to their First Claim, and asserts that if the challenged provisions are not water quality standards, they still require review as they affect Oregon's water quality standards. Plaintiff asks this court to compel the EPA to review these provisions, and it believes that following a proper review, the EPA will be required to disapprove them.

At the heart of this matter is the distinction the CWA draws between point, and nonpoint sources of pollution. A "point source" means any "discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged." *Id.* at § 1362(14). Nonpoint source pollution is undefined in the statute, but is considered "the type of pollution that arises from many dispersed activities over large areas, and is not traceable to any single discrete source." *Nw. Envtl. Def. Ctr. v. Brown*, 640 F.3d 1063, 1070 (9th Cir. 2011) (citation omitted). Nonpoint and point sources are "not distinguished by the kind of pollution they create or by the activity causing the pollution, but rather by whether the pollution reaches the water through a confined, discrete conveyance." *Id.* at 1071 (citation and emphasis omitted). In Oregon, nonpoint sources, such as forestry, grazing, and farming activities, are some of the largest contributors to violations of water quality standards for temperature.

When Congress enacted sweeping revisions to the CWA in 1972, it shifted the focus from the effects of pollution to the preventable causes of pollution. *Or. Natural Desert Assoc. v. Dombeck*, 172 F.3d 1092, 1096 (9th Cir. 1998). To drastically reduce the preventable causes of pollution, Congress focused on the use of technological controls. *Id.* These technological controls

reduce point sources of pollution through the National Pollutant Discharge Elimination System ("NPDES"). 33 U.S.C. § 1342. A point source discharger may comply with the CWA by obtaining a NPDES permit. 33 U.S.C. § 1342; *Nw. Env'tl. Def. Ctr.*, 640 F.3d at 1070 (explaining that the CWA "prohibits the discharge of any pollutant from a point source into navigable waters of the United States without an NPDES permit") (citations omitted). NPDES permits are issued by the EPA or state agencies authorized by the EPA to implement the program. 33 U.S.C. § 1342(a)-(d); 39 Fed. Reg. 26,061 (July 16, 1974) (granting Oregon authority to issue permits under the NPDES program). The CWA generally prohibits a point source from discharging any pollutant into the waters of the United States absent a NPDES permit. 33 U.S.C. §§ 1311(a); 1362(6) (including heat as a pollutant).

In addition to the reduction of pollution through technological controls on point sources, the Act utilizes water quality standards to set acceptable levels of water quality. These water quality standards set goals for a body of water regardless of whether the water is polluted by point or nonpoint sources of pollution. Because nonpoint sources are not regulated under the NPDES, Congress granted authority to the states to implement water quality standards for nonpoint sources with guidance and funding from the EPA. *Or. Natural Res. Council v. U.S. Forest Serv.*, 834 F.2d 842, 849 (9th Cir. 1987); *see also* 33 U.S.C. §§ 1288, 1313, 1329.

A water quality standard defines the water quality goals for a water body by "designating the use or uses to be made of the water and by setting criteria necessary to protect the uses." 40 C.F.R. § 131.2. Water quality standards must designate a specified use for each water body, whether or not they are being attained, and set narrative or numeric criteria for the water that will support the designated uses. *Id.* at § 131.3(b) & (f). In specifying the uses and criteria for a water body, the standards must take into account the water's "use and value for public water supplies, propagation

of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes" 33 U.S.C. § 1313(c)(2).

When submitting water quality standards to the EPA for review, a state must also include an antidegradation policy, a certification that the standards were duly adopted pursuant to state law, the state's methods and analyses used to support any revisions to the standards, and general information that will aid the EPA in determining the adequacy of the scientific bases of the standards. 40 C.F.R. § 131.6. The states are required to set these standards for all waters within their boundaries "regardless of the sources of the pollution entering the waters." *Prosolino v. Nastri*, 291 F.3d 1123, 1127 (9th Cir. 2002).

Plaintiff's First Claim for Relief asserts that some of the regulations enacted by Oregon to implement water quality standards are in fact water quality standards. *See, e.g.*, OR. ADMIN. R. ("OAR") 340-041-0028(12)(e)-(h) (stating that foresting operations, farming and ranching operations, and agriculture or forestry activities that are in compliance with the applicable best management practices are deemed to be in compliance with temperature standards); OAR 340-041-0061(11) & (13) (same for other water quality criteria); OAR 340-041-0004(4)(a) & (b) (stating that rotating grazing pastures and agricultural crop rotation will not trigger an antidegradation review so long as they do not increase in frequency, intensity, duration, or geographical extent). As stated above, plaintiff's Second Claim for Relief is presented in the alternative to the First Claim, and asserts that if the provisions are not water quality standards themselves, they affect water quality standards such that they must be reviewed nonetheless. *See* 40 C.F.R. § 131.13 ("[P]olicies generally affecting [the] application and implementation" of water quality standards "such as mixing zones, low flows, and variances" are subject to EPA review and approval). Oregon and the EPA contend that the regulations at issue in this case are not water quality standards but instead define what

nonpoint sources must do to comply with Oregon's water quality standards; that they merely address how the water quality standards are to be implemented with respect to nonpoint sources. Additionally, the EPA contends that it does not have authority to review the nonpoint source provisions as doing so would exceed its authority by regulating nonpoint sources. The court first turns to the question of whether the nonpoint source provisions are water quality standards, and then to the question of whether the EPA has authority to review them.

Plaintiffs' alternative pleading of its Second Claim for Relief exposes the critical flaw in the State's regulatory scheme on this point. The challenged provisions, *see, e.g.*, OAR 340-041-0028(12)(e)-(h), do not meet the traditional definition of water quality standards insofar as they do not "express constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use." 44 C.F.R. § 131.3(b). They cannot be said to express goals for the state's waters. In contrast, the subsections preceding the challenged provisions designate uses for certain Oregon waters and provide temperature criteria for the designated uses. OAR 340-041-0028(1)-(11). Nonetheless, it is clear that at least some of the provisions are intrinsically intertwined with the promulgated water quality standards and have the potential to supplant or, at the very least, delay the attainment of those standards. For instance, OAR 340-041-0028(12)(e) provides that forest operations on State and private lands are to comply with water quality standards for temperature by implementing best management practices ("BMPs") already required under the Forest Practices Act (ORS 527.610-992) and that forest operations that comply with the BMPs are "deemed in compliance with" temperature standards. This, and other provisions, essentially exempt various nonpoint sources of heat pollution from complying with water quality standards so long as they maintain the status quo. *See, eg.*, OAR 340-041-0004(4)(a) & (b) (providing that the rotation of grazing pastures and agricultural crop rotations will not trigger an antidegradation review so long

as they do not increase in frequency, intensity, duration, or geographical extent); *see also* OAR 340-041-0028(12)(g) (providing that agricultural and forestry activities on federal lands implementing water quality restoration plans, BMPs, aquatic conservation strategies are deemed in compliance with temperature standards).

Given that many temperature impaired waters in Oregon are impaired in whole or in part by nonpoint sources of pollution, the challenged provisions could present a considerable obstacle to the attainment of water quality standards when, by law, the sources of pollution are deemed to be in compliance with water quality standards. A prior challenge to the Forest Service under the CWA illustrates the dichotomy between these regulations' purpose and their effect when applied. *Ctr. for Biological Diversity v. Wagner*, Civil No. 08-302-CL, 2009 WL 2176049, at *16-18 (D. Or. June 29, 2009). In *Wagner*, environmental plaintiffs sued the Forest Service for violating Oregon's water quality standards. Grazing activities authorized by the Forest Service were causing exceedances of the State's numeric *E. Coli* standards. However, OAR 340-041-0061(13) (an OAR nearly identical to OAR 340-041-0028(12)(g)), provided that compliance with BMPs was deemed compliance with the State's water quality standards for *E. Coli*. Accordingly, Judge Clark was forced to conclude, despite violations of numeric water quality standards, that the Forest Service was in compliance with those water quality standards *vis-a-vis* the implementation of BMPs. *Wagner*, 2009 WL 2176049, at *18.

The challenged provisions do not in fact change Oregon's numeric and narrative water quality standards. If nonpoint sources of pollution cause exceedances of those standards for a particular body of water despite implementation of BMPs, Oregon would be required to place the water body on its § 1313(d) list and develop a TMDL for that water subject to review by the EPA. Additionally, if the water quality standards were not met, the BMPs could be revised. *See, e.g.*, ORS 527.765(3)

(providing that the Environmental Quality Commission can petition the Board of Forestry to adopt more stringent BMPs in order to meet standards); ORS 568.930(3) (providing that the Environmental Quality Commission may petition the Oregon Department of Agriculture to adopt more stringent BMPs in order to meet standards). During the TMDL process, and the processes by which BMPs are potentially revised under Oregon law, the challenged nonpoint source provisions would remain in effect, nonpoint sources of pollution would be deemed to be in compliance with water quality standards, and water quality would remain impaired. While the challenged provisions may not meet the EPA's definition of "water quality standards" those provisions clearly have the potential to interfere with the attainment of water quality standards by effectively supplanting those standards as they apply to nonpoint sources, possibly for years at a time. *See* ORS 568.930(3) (granting the Oregon Department of Agriculture two years to revise BMPs in response to a petition from the Environmental Quality Commission); ORS 527.765(3) (same timeline with respect to BMPs for forestry operations).

After reviewing the challenged provisions that the EPA chose not review, this court turns to the purpose of water quality standards, and the CWA itself, in answering the question of whether the EPA should have reviewed these provisions. As stated above, the purpose of the CWA is to "restore and maintain the . . . integrity of the Nation's waters." 33 U.S.C. § 1251(a). The Act seeks to accomplish this, in part, by requiring each state to develop water quality standards for all waterbodies within its jurisdiction. *Id.* at § 1313(a). "The states are required to set water quality standards for *all* waters within their boundaries regardless of the sources of the pollution entering the waters." *Prosolino*, 291 F.3d at 1127. This court concludes that the EPA was required to review Oregon's nonpoint source provisions to the extent (discussed below) that such a review would not exceed EPA's authority. Just as the CWA demands that the EPA review new or revised water quality

standards, it must also require a review of new or revised regulations that affect whether and how those standards are applied. The EPA cannot choose to review and approve water quality standards while ignoring separate provisions which have the potential to cripple the application of those standards. If the EPA is required to determine whether proposed water quality criteria are "sufficient to protect the designated uses" it would undermine the purposes of the Act to not require a review of provisions promulgated that may enable or disable the attainment of that criteria. 40 C.F.R. § 131.6. Thus, the court concludes that the EPA's construction of the statute regarding its nondiscretionary duty to review water quality standards is not based on a permissible construction of the statute.

Support for this holding is found in the Eleventh Circuit's decision in *Florida Public Interest Research Group Citizen Lobby, Inc. (FPIRG) v. EPA*, 386 F.3d 1070 (11th Cir. 2004). In that case, an environmental group challenged the EPA's decision not to review Florida's Impaired Waters Rule. *Id.* The challenged rule changed the methodology by which water quality was tested, and thereby whether a water body was determined to be or not be impaired. *Id.* at 1077-79. The plaintiff contended the new rule effectively changed Florida's water quality standards even though the rule itself was not a water quality standard. The district court had held that the actual water quality standards had remained unchanged and therefore, EPA was not required to review the new rule. *Id.* at 1080-81 (citation omitted). The Eleventh Circuit reversed, holding that the question was "what effect, if any, the Impaired Waters Rule had on Florida's water quality standards." *Id.* at 1082. Here, as in *FPIRG*, the "EPA simply assumed that the [rule] was not a change in water quality standards." *Id.* The EPA looked at the plain language of the challenged provisions, saw that they were not traditional water quality standards, and did not review the potential effects the provisions may have to supplant or otherwise delay the implementation of Oregon's water quality standards. Without a

searching review of the challenged provisions, the EPA was not entitled to make that decision. The EPA should have reviewed the "actual effect" of the challenged nonpoint source provisions. *Id.* at 1089. Otherwise, Oregon could "modify its water quality standards, simply disavow that a change had taken place, and the EPA could rely on [Oregon's] disavowal to avoid its mandatory review of the modified standards." *Id.*

Because the challenged provisions apply to nonpoint sources of pollution, the court next turns to the question of whether the EPA has authority to review and potentially disapprove Oregon's nonpoint source provisions as a part of its water quality standards review. The EPA urges this court to follow the Tenth Circuit's decision in *American Wildlands v. Browner*, 260 F.3d at 1197-98. The *Browner* court noted that although "states are required to 'assure that there shall be achieved . . . cost-effective and reasonable best management practices for nonpoint source control'" states are not "required to regulate nonpoint sources at the antidegradation stage." *Id.* (quoting 40 C.F.R. § 131.12(a)(2)). The court held that because the CWA does not give "the EPA the authority to regulate nonpoint source discharges, the EPA's determination – that Montana's water quality standards exempting nonpoint source discharges from antidegradation review are consistent with the Act – is a permissible construction of the Act." *Id.* at 1198.

Plaintiff instead cites the Ninth Circuit's decision in *Pronsolino v. Nastri*. In *Pronsolino*, a landowner and interested organizations challenged the EPA's authority to impose TMDLs on rivers in California that were polluted solely by nonpoint sources. 291 F.3d at 1130. The court recognized that the EPA had express authority under the CWA to approve or disapprove the § 1313(d) lists and TMDLs submitted by the states. *Id.* at 1131. The plaintiffs argued that this statutory authority did not extend to rivers polluted only by nonpoint sources, and that the EPA's regulations interpreting its authority as such were improper. *Id.* However, the Ninth Circuit observed that the EPA's

regulations focused on the attainment of water quality standards regardless of the source of the pollution. *Id.* at 1132.

Although the facts presented in the Tenth Circuit's *American Wildlands* decision arguably are similar to those in the case at bar, the court is not persuaded that the EPA lacks authority to review Oregon's nonpoint source provisions. Instead, the Ninth Circuit's guidance in *Pronsolino* proves to be instructive and guide's this court's analytical framework. The Ninth Circuit's observed that "[o]ne purpose of water quality standards therefore –and not surprisingly– is to provide federally-approved goals to be achieved *both* by state controls and by federal strategies *other* than point-source technology-based limitations," and that "[t]his purpose pertains to waters impaired by both point and nonpoint sources of pollution." *Pronsolino*, 291 F.3d at 1130.⁵ More importantly, nothing in this court's ruling requires the EPA to exceed its authority. By concluding that the EPA had a nondiscretionary duty to review the nonpoint source provisions which are part and parcel of Oregon's water quality standards, insofar as the provisions affect how, whether, and when those standards apply to bodies of water polluted by nonpoint sources, does not mean EPA is required to directly regulate nonpoint sources. To be clear, this court is not holding that the challenged provisions are water quality standards, but simply that they are so bound up with Oregon's water quality standards that the EPA was required to review the effects of those provisions to ensure that they do not supplant, delay the implementation of, or in some other way undermine the application of Oregon's standards to the state's waterbodies.

The government's argument that the EPA's disapproval of the nonpoint source provisions

⁵ The court also notes that the EPA's understanding of its own authority appears to be at odds with the arguments it made regarding its broad authority before the Ninth Circuit in *Pronsolino*.

would require the EPA to directly regulate nonpoint sources is not persuasive. All that the EPA is required to do is decide if Oregon's nonpoint source provisions are lawful. The EPA is not required to decide which method of regulating nonpoint sources is best. There are myriad ways to regulate nonpoint sources and the ultimate disapproval of all or some of Oregon's currently selected methods would not require EPA to draft its own nonpoint source provisions. Disapproval would leave Oregon free to select a different regulatory scheme on its own, albeit one that is lawful.

Accordingly, for the reasons provided, plaintiff is granted summary judgment on the First Claim for Relief. As the Second Claim for Relief was plead as an alternative to the First, that claim is denied as moot.

B. The EPA's approval of Oregon's numeric criteria

The CWA requires states to adopt water quality criteria that protect the designated uses identified in the water quality standards. 40 C.F.R. §§ 131.11(a)(1); 131.5(a)(2). The numeric criteria must be based on sound scientific rationale, must contain sufficient parameters or constituents to protect the designated uses, and in waters with multiple use designations, the criteria must support the most sensitive use. *Id.* at §§ 131.11(a)(1); 131.6(c). Oregon's temperature standards are expressed as a seven-day average of the daily maximum (7DADM), which describes the average temperatures that fish would be exposed to over a week, rather than in a single day. EPA 1 at 000048.

Plaintiff challenges the EPA's approval of Oregon's numeric water quality criteria on the basis that they do not adequately protect salmonids within the state's waters. The regulations at issue appear in OAR 340-041-0028(4)(a), (4)(c), (4)(d), and (4)(f). This court must determine if the EPA's approval of the temperature criteria was arbitrary and capricious. Because these scientific determinations fall within the agency's area of expertise, this court must give substantial deference

to the EPA's decisions. *Balt. Gas & Elec. Co.*, 462 U.S. at 103.

1. Temperature Criterion for Salmon and Steelhead Migration

Plaintiff's Fourth Claim for Relief challenges the EPA's approval of Oregon's 20 degrees Celsius ("C")⁶ criterion for salmon and steelhead migration. This criterion is identical to the EPA's recommendation in its Temperature Guidance, and includes a narrative criterion requiring sufficient cold water refugia. EPA 1 at 000055; EPA 104 at 013555. The EPA explained that this temperature roughly translates to a maximum weekly mean temperature of 19-20C due to little diurnal variation in the summer. EPA 1 at 000055. The EPA believed it would protect migrating juveniles and adults from lethal temperatures and prevent migration blockage, but would cause adverse effects to salmonids from elevated disease risk. *Id.* at 000055-56; EPA 104 at 013543.

The EPA believed that the adverse effects would be minimal because migration would occur for most salmonids during colder times of the year. EPA 1 at 000056; *see also*, EPA 66 at 002203 (believing the 20C criterion will only apply where the natural condition is 20C or greater, and expecting the temperature to be lower when and where the use occurs). However, the NMFS advised the EPA that some migrating adults are present in waters governed by the 20C criterion during summer maximums. EPA 972 at 027039-40. The NMFS found that migrating or holding adults would be exposed to higher temperatures in those rivers for more than a limited duration. *Id.*

Although the 20C criterion is associated with higher disease risks, significant mortality to salmonids does not occur at that temperature. EPA 136 at 015549; EPA 107 at 013807, 013830; *see, e.g.*, EPA 124 at 014739-45 (risks to holding adults, but successful migration occurs at 18-20C); EPA 136 at 015585 (good survival at or below 20C).

Additionally, the EPA based its approval on Oregon's inclusion of the narrative criteria

⁶ All temperatures are expressed in Celsius unless otherwise noted.

protecting and ensuring cold water refugia. EPA 1 at 000056. Cold water refugia is crucial to the survival of salmonids in suboptimal temperatures. *See* EPA 121 at 014585-87; EPA 104 at 013536, 013556-57. The EPA's Temperature Guidance defined cold water refugia as areas that are generally two degrees colder than the surrounding water. EPA 104 at 013556. Oregon modified its definition of cold water refugia from that proposed by the EPA, and defined cold water refugia as portions of a water body at least two degrees colder than the daily maximum temperature of the adjacent well-mixed flow of the water body. OAR 340-041-0002(10); EPA 1 at 000055. In its approval of the criterion, the EPA construed Oregon's definition as consistent with the Temperature Guidance because both called for the protection and restoration of spatial, temporal, and seasonal patterns of cold water refugia to protect salmonids where the 20 degrees criterion would apply. *Id.* at 000059.

Plaintiff asserts that Oregon's definition of cold water refugia is not sufficiently protective and that the EPA does not know where the cold water refugia exists. *See* EPA 1 at 000056. According to plaintiff, Oregon's definition cannot protect salmonids from lethal temperatures during the day because waters that cool by at least two degrees at night would qualify as having cold water refugia. The EPA responds that all rivers where this criterion apply are currently listed on Oregon's § 1313(d) list of impaired waters, so the refugia necessary to protect salmonids will be identified and restored during the TMDL process. Additionally, the regulation requires cold water refugia that is "sufficiently distributed so as to allow salmon and steelhead migration without significant adverse effects from higher water temperatures" OAR 340-041-0028(4)(d). Even though Oregon does not define what amount of refugia is sufficient to protect salmonids, the narrative provision requires that it protect the designated use.

Plaintiff also challenges the EPA's assumption that rivers would seasonally cool to temperatures that would protect the designated use. *See* EPA 104 at 013557 (noting that the EPA

expects that if maximum criteria are attained, seasonal warming and cooling will support designated uses); EPA 972 at 027039 (noting that 7DADM temperature is three degrees warmer than maximum weekly average); EPA 117 at 014368-75; EPA 146 at 017968-71. The criterion, though at the high end, is within the acceptable range to protect the designated use.

The court shares some of plaintiff's concerns regarding the uncertainty inherent in the approval of the 20C criterion and attendant narrative provision calling for sufficient coldwater refugia, and in the fact that the selected criteria is at the upper end of the range allowing successful migration. However, this court may not substitute its judgment for that of the agency, especially in the scientific realm. Under the deferential standard of review required in cases such as the one at bar, the court is forced to conclude that the EPA had a rational basis for approving the criterion. Accordingly, summary judgment on plaintiff's Fourth Claim for Relief is granted to defendants.

2. Temperature Criterion for Salmon and Steelhead Juvenile Rearing and Migration

Plaintiff's Fifth Claim for Relief challenges the EPA's approval of Oregon's 18C criterion for salmon and steelhead rearing and migration. The EPA concluded that this criterion would protect against lethal conditions and high disease risk, prevent migration blockage, and provide near optimal growth conditions. EPA 1 at 000054; EPA 104 at 013543. The EPA noted that the criterion would apply during the warmest times of the year and in the lowest downstream locations of a designated waterbody, so salmonids would likely experience minimal or no adverse effects. EPA 1 at 000055.

Plaintiff argues that this criterion does not protect the designated use because of elevated disease risks associated with 18C and because the EPA previously recommended a lower temperature criterion for this use. The EPA responds that its approval was rationally based on its belief that the criterion would be adequately protective of salmonids and because the successful

application of the criterion would represent an improvement over existing conditions in the subject waterbodies.⁷

In its early recommendations, the EPA proposed that a 16C criterion apply for juvenile rearing and a separate criterion of 18C apply for migration. EPA 523, Att. 11 at 022417; EPA 559, Att. 1 at 22693. This fact alone cannot invalidate the EPA's later approval of a single criterion for both uses. Moreover, the criterion appears to be within the acceptable limits for the designated use. EPA 123 at 14638-42; EPA 119 at 14532-33; EPA 124 at 014668, 014704-05; EPA 136 at 15516-17.

Though a lower temperature may have been more protective of the juvenile salmonids, the court cannot conclude that the EPA failed to articulate a rational connection between the facts found and the agency's conclusions. *Ctr. for Biological Diversity*, 538 F.3d at 1193. Accordingly, summary judgment on plaintiff's Fifth Claim for Relief is granted to defendants.

3. Temperature Criterion for Salmon and Steelhead Spawning Through Fry Emergence

Plaintiff's Sixth Claim for Relief challenges the EPA's approval of Oregon's 13C criterion for salmon and steelhead spawning. Based on the diurnal variation where this use occurs, the EPA believed this criterion would result in maximum weekly mean temperatures of 10-12C, which is at the high end for optimal egg incubation and within the daily average temperatures observed for spawning. EPA 1 at 000051-53; *see* EPA 104 at 013558. Because this criterion is within the acceptable limits for the designated use, the court finds that the EPA's approval was not arbitrary or

⁷ The court rejects the EPA's argument that its approval of the criterion was reasonable because the criterion constituted an improvement over existing conditions. The EPA is required to review whether the proposed standards will protect the designated use, not whether the standard, if attained, would represent an improvement in water conditions. 40 C.F.R. § 131.11(a)(1).

capricious, even if a different criterion would arguably be more protective. The court grants summary judgment in favor of defendants on plaintiff's Sixth Claim for Relief.

4. Temperature Criterion for Bull Trout Rearing and Spawning

Plaintiff's Seventh Claim for Relief challenges the EPA's approval of Oregon's 12C criterion for bull trout rearing and spawning. This criterion translates to a constant temperature of 11.5C. EPA 1 at 000058. Oregon also added a provision that limited temperature increases to 0.3C when temperatures were above 9C, and 1C when temperatures were 9C or cooler. *Id.* In adopting this criterion, the EPA noted that it was consistent with its recommendation and sufficiently protected bull trout rearing and spawning. *Id.* at 000052, 000058. Although Oregon did not set a separate criterion for bull trout spawning, the EPA concluded that the thermal patterns in Oregon waters would naturally decrease to 9C by late summer and fall when spawning occurs, and further decrease to protect egg incubation in the winter. *Id.*; see EPA 104 at 013558 (recommending 9C criterion for bull trout spawning).

Plaintiff claims that a lower temperature criterion is necessary to protect bull trout spawning. Plaintiff agrees that Oregon's waters generally experience seasonal cooling, however, contends that the EPA cannot establish that all waters where bull trout spawning occurs will cool by at least three degrees to protect the designated use. See EPA 1195 at 035749 (recommending a 9C criterion even if temperatures will naturally cool from 12C to ensure protection of early spawning); EPA 783 at 024786 (recommending cold water refugia as part of criteria to adequately protect bull trout); EPA 56 at 001702 (noting that most bull trout spawn in September and October, but some spawning occurs as early as July). However, there is some evidence supporting the EPA's conclusion. See EPA 105 at 013590-669 (showing that some sites cooled by the requisite three degrees by September 1). Additionally, although plaintiff disagrees with the EPA's assumption that upstream waters are

necessarily cooler than downstream waters, when the standard applies at the lowest downstream point, a rational basis exists for that conclusion. EPA 146 at 017969-70; EPA 105 at 013594.

The EPA's approval of Oregon's 12C criterion for bull trout appears to rest on assumptions that are not fully supported by the scientific record. However, these assumptions are supported in part by the administrative record and are not arbitrary. Defendants are granted summary judgment on plaintiff's Seventh Claim for Relief.

C. The EPA's approval of the natural conditions criteria

Plaintiff's Eighth Claim for Relief challenges the EPA's approval of Oregon's narrative Natural Conditions Criteria ("NCC") found in OAR 340-041-0028(8). The regulation provides that where the Oregon Department of Environmental Quality ("DEQ") determines that "the natural thermal potential of all or a portion of a water body exceeds the biologically-based [numeric] criteria, the natural thermal potential temperatures supersede the biologically-based [numeric] criteria, and are deemed to be the applicable temperature criteria for that water body." OAR 340-041-0028(8). The EPA approved the criteria because the natural thermal potential for portions of rivers and streams may exceed the numeric criteria for those waters. EPA 1 at 000061. Although temperatures above optimal levels adversely affect salmonids, the EPA viewed "temperature criteria based on natural conditions to be fully protective of salmonid uses" because salmonids had historically thrived under natural conditions. *Id.*

Plaintiff contends that this regulation effectively swallows the numeric criteria, noting that Oregon has applied it to all waters where temperature TMDLs have been prepared since its promulgation. Additionally, plaintiff argues that it is a one-way ratchet that allows only the increase of temperature criteria and does not protect naturally cooler water conditions.

The EPA responds that the NCC is protective of both naturally cooler and warmer conditions

in Oregon's waters. *See also* EPA 1 at 000063 (responding to comments that natural conditions would not encompass all variability in a water's temperature profile). The EPA approved this criterion because it believed waters prior to human impacts supported healthy salmonid populations. EPA 1 at 000061. However, the record indicates that waters with naturally higher temperatures were protective of salmonids because they also provided sufficient cold water refugia. EPA 106 at 013696-708. Plaintiff asserts the NCC is not sufficiently protective because Oregon's waters have lost much of their natural thermal diversity and habitat conditions. *See* EPA 138 at 015789; EPA 117 at 014388; EPA 131 at 014906-08.

Additionally, plaintiff argues that the EPA's approval was arbitrary and capricious because it knew that the methodology for estimating natural potential temperatures was seriously flawed. *See* EPA 630 at 023255-57 (discussing uncertainty in modeling); EPA 499 at 022258 (same); EPA 592 at 023004-05 (explaining that certain models are fraught with uncertainty). The EPA responds that it discussed a variety of methods for determining natural thermal conditions, including their inherent strengths and weaknesses, and encouraged states to use a combined approach. EPA 104 at 013566-68; *see* EPA 5 at 152-53 (explaining that Oregon intends to use three methods to determine natural conditions, including modeling). Moreover, the regulation requires that Oregon determine the thermal profile of a water body using "best available methods of analysis and the best available information on the site-potential riparian vegetation, stream geomorphology, stream flows, and other measures to reflect natural conditions." OAR 340-041-0002(41).

Plaintiff also argues that Oregon's use of the NCC supplants the numeric criteria and violates the EPA's regulations because it alters the state water quality standards without submitting them to the EPA for review. *See Ohio Valley Envtl. Coal. v. Horinko*, 279 F. Supp. 2d 732, 764 (S.D. W. Va. 2003) (invalidating the EPA's approval of a state rule that permitted the state to exempt certain

activities from its antidegradation review without approval from the EPA). The EPA contends that the CWA and its regulations do not require the EPA to ensure that the natural conditions are protective of the designated uses as it has already done so by approving the NCC. It also asserts that it retains the authority to disapprove any TMDLs or § 1313(d) listings that do not conform with the NCC.

Finally, plaintiff argues that Oregon lacked authority to establish narrative criteria in this situation. The EPA directs states to "[e]stablish narrative criteria . . . where numerical criteria cannot be established or to supplement numerical criteria." 40 C.F.R. § 131.11(b)(2). The EPA contends that the NCC is intended to supplement the numeric criteria where they did not reflect natural conditions.

The EPA's approval of the NCC was arbitrary and capricious for a number of reasons. The first, and most important, is that the NCC supplants otherwise lawful water quality standards. The EPA characterizes the NCC as a narrative criteria utilized to supplement numerical criteria. Under the CWA's regulations, states should establish narrative criteria "where numerical criteria cannot be established or to supplement narrative criteria." 40 C.F.R. § 131.11(b)(2). Because numeric criteria can be established, the relevant question is whether the NCC supplements narrative criteria. It does not. Instead the NCC supplants rather than supplements the numeric criteria by allowing Oregon to replace the numeric criteria (determined to be protective of salmonids) with a new numeric standard during the TMDL process. The replacement of one numeric standard with another less-protective numeric standard cannot be viewed as "supplementing" the first standard. Accordingly, the court finds that the NCC violates the CWA's § 303 (c) water quality standards review. *Ohio Valley Envtl. Coal.*, 279 F. Supp. 2d at 764.

However, the fact that the NCC runs afoul of the CWA's regulations is not its only defect.

The NCC is based on the assumption that if historical water temperatures protected salmonids then, the same water temperatures would protect salmonids now. This reasoning ignores or otherwise discounts the historical changes to salmonid populations and river conditions. The record clearly demonstrates that many of Oregon's modern waterbodies have undergone dramatic changes and are no longer the rivers they once were. *See, e.g.*, EPA 138 at 015789 (noting that the Willamette River has lost seventy-five percent of its shoreline and has lost side channels offering rearing habitat). The NCC attempts to restore one aspect of Oregon's historical water conditions (higher temperatures in some waterbodies) without restoring the other conditions that allowed salmonids to thrive. Compounding this problem are the difficulties of estimating the historical water temperatures upon which the NCC depends. Despite the fact that Oregon is required to use the best scientific data available to do so, it is a process rife with uncertainty. The EPA has been unable to articulate a rationale basis for its approval of the NCC. *Ctr. for Biological Diversity*, 538 F.3d at 1193. Plaintiff is granted summary judgment on the Eighth Claim for Relief.⁸

D. The EPA's approval of Oregon's use designations

Plaintiff's Third Claim for Relief challenges the EPA's approval of Oregon's use designations as less stringent than the previous use designations, and contends that Oregon was required to conduct a Use Attainability Analysis ("UAA") before designating the uses.

Under the CWA, a state may not remove an existing use unless the state replaces it with more stringent criteria. 40 C.F.R. § 131.10(h)(1). Existing uses are uses "actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality

⁸ Plaintiff's challenge to the EPA's approval of the "Human Use Allowance" is rejected. OAR 340-041-0028(12)(b). It is clear that the EPA evaluated the potential for cumulative impacts and its approval of the Human Use Allowance was in no way arbitrary or capricious.

standards." *Id.* at § 131.3(e). A UAA is a structured scientific assessment of the factors affecting the attainment of[a use] which may include the physical, chemical, biological, and economic factors. *Id.* at § 131.3(g). A state must conduct a UAA whenever it removes Section 101(a)(2)'s general protection and propagation of fish use or establishes subcategories that require less stringent criteria. 40 C.F.R. § 131.10(j)(2). These rules embody a "rebuttable presumption" that certain uses cannot be removed except under narrowly circumscribed conditions. 63 Fed. Reg. 36,742, 36,749 (July 7, 1998) (explaining that fishable and swimmable uses are considered attainable and should apply to a water body unless it is affirmatively demonstrated that such uses are not attainable); EPA 87 at 002709 (same); *Idaho Mining Ass'n, Inc. v. Browner*, 90 F. Supp. 2d 1078, 1092 (D. Idaho 2000) (upholding the EPA's interpretation of its regulations as including a rebuttable presumption).

Oregon originally designated many of its waters as salmonid rearing waters, which were subject to a 64 degrees Fahrenheit criterion (equivalent to 17.8C). EPA 146 at 017944, 017996. Oregon then replaced the generally applicable designation with a "suite of uses" as recommended by the EPA. EPA 104 at 013569. The EPA approved those use designations, and explained that a UAA was unnecessary in such a situation "as long as the overall sustainable salmonid population use is still being protected." *Id.* (citing 40 C.F.R. § 131.10(k)). The parties dispute whether this use refinement constituted a removal of uses or established less stringent subcategories of uses. Plaintiff argues that the Oregon previously designated all salmonid rearing uses for all salmonid rearing waters and that the current suite of uses is less protective in some water bodies.

The EPA contends that Oregon's use designations merely clarified where the specific uses apply pursuant to the Final Judgment issued by this court in *NWEA I*. EPA 1 at 000083. The EPA asserts that it refined the broad rearing category to include subcategories intended to better protect

the distinct life stages of more sensitive species, but that the general fish protection and propagation use still applies. *Id.* at 000083-84. Based on its interpretation of its regulations, the EPA concluded that a UAA was not required because the suite of uses would better protect salmonid uses. EPA 104 at 013569; 40 C.F.R. § 131.10(k) (stating that a UAA is not required "whenever designating uses which include those specified in Section 101(a)(2) of the Act").

Plaintiff also challenges Oregon's use designations because they do not reflect where the specific uses are attainable, but focused on where they currently occur or could occur. Oregon took a conservative approach in its use designations by including areas where salmonid use occurred and was likely to occur based on proximity to known uses and suitable habitat. EPA 1 at 000077; EPA 10, Att. H at 000504 (stating that the DEQ designated bull trout use based on where it currently occurs and potentially could occur because habitat has been greatly reduced and fragmented). Specifically, plaintiff contends that Oregon did not designate bull trout use where it historically existed. Plaintiff notes that Oregon did not designate bull trout use in the lower half of Eagle Creek, where bull trout were caught in the mid-1980s but are believed to have been extirpated after 1990. Pl.'s Mem. at 39 (citing FWS 180; FWS 546).

The EPA responds that waters where bull trout are not present during summer months were not designated for core cold water use because the cold water criterion was not necessary to protect migrating bull trout. EPA 99 at 013165; EPA 1 at 000086; EPA 56 at 001721; EPA 58 at 001795-98. Moreover, the EPA defends its approval of Oregon's designations as based on the best available science developed by an interagency team of specialists. EPA Mem. at 34-35; EPA 1 at 000036 (responding that EPA had no information concerning "any particular waterbody in Oregon where the existing use of that waterbody . . . is not protected by the time and place use designations in Oregon's rule.").

A UAA is required where a state removes the general fish protection and propagation use or establishes less stringent subcategories. 40 C.F.R. § 131.10(j)(2). Oregon did not remove this general use or establish less stringent subcategories. Rather, Oregon's new uses continue to protect salmonids, but with more specific fish use designations. The EPA reasonably concluded that Oregon's designation of uses did not constitute a removal, but was instead the designation of uses contemplated by 40 C.F.R. § 131.10(k), which specifically does not require a UAA. *Auer v. Robbins*, 519 U.S. 452, 461 (1997) (holding that an agency's interpretation of its own regulation is "controlling unless plainly erroneous or inconsistent with the regulation"). Accordingly, a UAA was not required and, thus, the court will not require a UAA or an analysis of existing uses when the regulations do not. The EPA reasonably approved Oregon's use designations, which, in accordance with *NWEA I*, articulated where and when the use designations apply. 268 F. Supp. 2d at 1267. Summary judgment on plaintiffs Third Claim for Relief is granted to defendants.

E. The EPA's approval of Oregon's antidegradation policy and implementation plan

Under the CWA, the states are required to establish an antidegradation policy that includes at least three tiers of protection for waters within their borders. 40 C.F.R. § 131.12(a). "Tier 1" protections ensure that "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 40 C.F.R. § 131.12(a)(1). This first tier of protection "provides the absolute floor of water quality in all waters of the United States." EPA 91 at 003090.

In accordance with the EPA's regulations, Oregon established three levels of protection under its antidegradation policy. OAR 340-041-0004(6)–(8). Oregon's "Tier 1" provision provides that "[w]ater quality limited waters may not be further degraded except in accordance with section

(9)(a)(B), (C) and (D) of this rule." OAR 340-041-0004(7). Section 9(a)(C) provides that the DEQ may grant exceptions for further degradation if "[t]he new or increased discharged load will not unacceptably threaten or impair any recognized beneficial uses or adversely affect threatened or endangered species." OAR 340-041-0004(9)(a)(C). Plaintiff's Ninth and Tenth Claims challenge the EPA's approval of these sections of Oregon's "Tier 1" protections.

Plaintiff's first challenge to Oregon's antidegradation policy is that it fails to protect existing uses, and instead applies to "recognized beneficial uses." At a minimum, Oregon's antidegradation policy must ensure that existing water uses and the level of water quality to protect those uses are maintained. *PUD No. 1 of Jefferson Cnty. v. Wash. Dep't of Ecology*, 511 U.S. 700, 705 (1994).

The EPA responds that the "Purpose" section of Oregon's antidegradation provisions demonstrates that the provisions protect existing uses. *See* OAR 340-041-0004(1) ("The purpose of the Antidegradation Policy is to guide decisions that affect water quality such that unnecessary further degradation from new or increased point and nonpoint sources of pollution is prevented, and to protect, maintain, and enhance existing surface water quality to ensure the full protection of all existing beneficial uses."). The EPA also cites its statement in an internal implementation document that "[a]ll beneficial uses except for those for which the standards are in violation must also be protected. . . . Existing uses must also be protected." EPA 174 at 019008.

Second, plaintiff contends that if recognized beneficial uses include existing uses, Oregon has not ensured that those uses will be maintained and protected because the regulations only protect uses from becoming "unacceptably threatened or impaired." The EPA explains that its interpretation of this provision means that Oregon disallows both unacceptable threats to uses and actual use impairment. The EPA reads Oregon's use of the term "unacceptably" as allowing only *de minimis* threats or impairments to the uses. Oregon's program must, at a minimum, not allow activities that

could partially or completely eliminate any existing use. *PUD No. 1 of Jefferson Cnty.*, 511 U.S. at 718-19. Based on the plain meaning of Oregon's antidegradation policy, and the EPA's reasonable construction of the phrase "will not unacceptably threaten or impair any recognized beneficial uses," the "Tier 1" provision meets the minimum requirement's of the CWA. Accordingly, the court grants summary judgment on plaintiff's Ninth Claim for Relief to defendants.

Plaintiff also attacks the EPA's approval of Oregon's antidegradation implementation plan. Plaintiff argues that the approval was arbitrary and capricious because the plan does not provide a method to identify or protect existing uses. This court previously ordered the EPA to promulgate implementation methods for Oregon. *NWEA I*, 268 F. Supp. 2d at 1265. In response, Oregon incorporated an Internal Management Directive ("IMD") into its revised water quality standards that it finalized before this court issued its prior Order and before Oregon promulgated the water quality standards at issue in this litigation. *See* EPA 174 (March 2001); EPA 1 at 000026 (explaining that the EPA considered the IMD as part of its review to understand whether the antidegradation regulations are consistent with the CWA). Plaintiff contends that the IMD fails to identify any methodology for implementing the antidegradation policy.

The EPA's response is two-fold. First, the EPA contends that its approval was appropriate because Oregon need only *identify* implementation methods pursuant to § 131.12(a). 40 C.F.R. § 131.12(a) ("The State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy . . ."). The EPA explains that the CWA does not specify a minimum method for implementing antidegradation policies, but simply requires that states "identify methods for their implementation" that are consistent with the regulations. EPA 1 at 000026, 000034.

Second, the EPA contends that it only approved pages 27 and 33-39 of the IMD because

Oregon incorporated only those pages into its water quality standards. The EPA asserts that it was not obligated to approve the entire IMD. Plaintiff contends that this interpretation is inconsistent with positions previously taken by the EPA, and is entitled to little deference. *INS v. Cardoza-Fonseca*, 480 U.S. 421, 469 (1987).

In its proposal, the EPA explained that although states are required to identify methods for implementing their antidegradation policy, "[s]uch methods are not required to be contained in the State's regulation," but will be reviewed to ensure consistency with the EPA's regulations. EPA 75 at 002483. If a state elects to include these methods in its water quality standards, the methods must be submitted to the EPA for review. *Id.* However, the EPA also noted that state implementation procedures "are subject to review" by the EPA to ensure that they "describe how the State will implement the required elements of the antidegradation review." EPA 91 at 003089 (noting also that procedures that "can be implemented in such a way as to circumvent the intent and purpose of the antidegradation policy" may be disapproved). This court specifically "ordered [the EPA] to promulgate an antidegradation implementation plan for Oregon's waters." *NWEA I*, 268 F. Supp. 2d at 1265. The court concludes that the EPA was required to review the IMD to ensure that it describes the required elements and complies with federal regulations such that it does not circumvent the purpose of the antidegradation policy. Accordingly, summary judgment on the Tenth Claim for Relief is granted in favor of plaintiff.

F. The EPA's approval of Oregon's standards regarding threatened or endangered species

In its final CWA claim (Eleventh Claim for Relief), plaintiff contends that the EPA failed to consider whether Oregon's water quality standards as a whole protect threatened or endangered salmonids. Plaintiff relies on all its earlier arguments as evidence that the EPA's approval of these

standards was arbitrary and capricious. As this court deferred to the EPA's approval of each of the numeric standards already discussed, the court grants summary judgment in favor of defendants on this claim as well.

II. ESA Claims

In its Twelfth and Thirteenth Claims for Relief, plaintiff asserts that the Services failed to assess the specific impacts of the EPA's approval of Oregon's water quality standards on each individual fish species and its critical habitat. Plaintiff objects to the Services' "no jeopardy" findings because they allegedly failed to consider recovery, cumulative effects, and the entire scientific record. The Services contend that their BiOps were neither arbitrary nor capricious because they relied on the best scientific and commercial data available at the time.

A. The NMFS's no jeopardy and no adverse modification conclusions

The NMFS concluded that the EPA's approval of Oregon's water quality standards would not result in jeopardy to listed species or in the adverse modification to the species' critical habitat. NMFS 2 at 53-54. Pursuant to the Services' regulations, a proposed action will jeopardize the continued existence of a species if it "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02. Adverse modification is defined to mean "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species." *Id.*

In its Twelfth Claim for Relief, plaintiff raises several challenges to the NMFS's jeopardy and critical habitat analyses in its BiOp, including: failing to consider each individual evolutionary significant unit (ESU) of salmon and steelhead, failing to consider recovery, failing to properly consider baseline conditions, and failing to consider cumulative effects. These arguments are

addressed in turn.

1. Individualized analysis

Plaintiff contends that the NMFS failed to evaluate the effects of the action on each of the fourteen ESUs.⁹ The Services respond that the NMFS had discretion to organize its BiOp in a manner that analyzes effects to multiple species with similar biological needs, and it adequately considered the needs of each ESU.

The NMFS discussed general biological and geographical information for each of the fourteen ESUs covered by the BiOp, but then provided scant analysis of how each proposed criterion would affect each ESU. *Compare* NMFS 2 at 8-19, *with* 53. The NMFS contends that it adequately considered the needs of each ESU and that salmonids have similar temperature requirements. NMFS 119 at 13 (noting that because salmonids share physiological requirements, a common temperature criterion could be used to protect the species as a single group). While it may be true that each of the fourteen ESUs have similar, though not identical, temperature requirements, there is no support for the conclusion that the temperature criteria will effect the ESUs in similar ways. The record reflects that the ESUs vary dramatically both in terms of population size and geographical range. For example, the Oregon Coast coho, which spawn in coastal streams, had returns of 239,000 adults in 2002. NMFS 2 at 16. Snake River sockeye by contrast, which must return to Idaho to spawn, had only ten returning adults from 1994 until the decision date.¹⁰ NMFS 2 at 11. The BiOp concludes

⁹ Plaintiff also contends that the brevity of the NMFS's BiOp is apparent when it is compared to the length and scope of the Services' BiOp for the Federal Columbia River Power System. That BiOp is irrelevant to the court's review in this case because it is not a part of the administrative record in this matter. *See Nat'l Wildlife Fed'n v. U.S. Army Corps of Eng'rs*, 384 F.3d 1163, 1170 (9th Cir. 2004) ("A reviewing court must review the administrative record before the agency at the time the agency made its decision.").

¹⁰ The sole returning Snake River sockeye in 1992 was dubbed "Lonesome Larry" as he returned to Redfish Lake in Idaho to find no other sockeye available for spawning.

that the revised water quality standards will subject both ESUs to "possible localized elevation of disease risk for adult and juvenile salmon and steelhead, reduced viability of gametes in some holding adults, and reduced growth of some juvenile salmon and steelhead," but that the effects are not likely to jeopardize the continued existence of either species. NMFS at 53. While the temperature standards may have similar effects on individual fish, it is not clear that they will have similar effects on ESUs as a whole. The NMFS' cursory review of the impacts the water quality standards are likely to have on each ESU renders the BiOp's conclusions arbitrary. Upon remand, the NMFS shall analyze the impacts of the water quality standards on each individual ESU.

2. Recovery

The NMFS determined that the EPA's approval of Oregon's revised water standards was "unlikely to be of a magnitude, duration or extent that would reduce the long-term survival" of the listed species. NMFS 2 at 53. Ultimately, the NMFS concluded that the action was not likely to jeopardize the "continued existence" of listed species, and was not likely to destroy or adversely modify designated critical habitat. *Id.* at 54. The parties dispute whether the NMFS considered recovery as well as survival of the listed species.

The intended goals of the ESA include preventing the extinction of a species and allowing a species to recover to the point where it can be de-listed. *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1070 (9th Cir. 2004) (citations omitted). Accordingly, recovery is an essential component of the ESA that must be considered when an agency carves out critical habitat for a species or makes a jeopardy analysis. *Id.*; see also *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 933 (9th Cir. 2008) (noting that the "highly precarious status of the listed fishes at issue raises a substantial possibility that considering recovery impacts could change the jeopardy analysis"). An agency's failure to adequately consider recovery needs in its adverse

modification or jeopardy analysis renders the agency's determination arbitrary and capricious. *Gifford Pinchot Task Force*, 378 F.3d at 1070; *Nat'l Wildlife Fed'n*, 524 F.3d at 933-34 (explaining that although recovery impacts alone may not necessarily require a jeopardy finding, an agency must consider recovery).

The Services acknowledge that the regulations the NMFS relied upon in its BiOp were struck down in *Gifford Pinchot*. Nevertheless, they contend that the NMFS considered recovery of the listed species by considering the potential habitat identified by Oregon in its beneficial use designations. *See* NMFS 2 at 38 (designating use based on documented observations of use and professional judgments about where use is likely to occur based on suitable habitat). The Services also contend that the NMFS's use of the phrase "adequate potential" in its BiOp demonstrates that the NMFS considered whether the temperature standards would ultimately support recovered salmonid populations.

The NMFS's BiOp stated that one of the goals of the consultation project was to better meet the biological needs for recovery of the listed species, and required the agency to determine whether the "species is expected to survive with an adequate potential for recovery." NMFS 2 at 20. The NMFS noted that recovery includes allowing the listed species to reach populations with a negligible risk of extinction over a one hundred year time frame. *Id.* The agency did not, however, identify what conditions were necessary to achieve recovery, and failed to specify when the proposed criteria would adversely affect the recovery of listed species or its habitat, rather than simply affect its survival.

An agency should "know roughly at what point survival and recovery will be placed at risk before it may conclude that no harm will result from 'significant' impairments to habitat that is already severely degraded." *Nat'l Wildlife Fed'n*, 524 F.3d at 936 (requiring the NMFS to explain

the in-river survival levels necessary to support recovery of the listed species). Here, the NMFS did not identify the conditions necessary for recovery of the listed species or their critical habitat, and made its no jeopardy determination based on the species' "long-term survival." NMFS 2 at 43-53.

The NMFS's conclusion that the species' long-term survival would be unaffected also presents a problem for the NMFS because an agency may not consider only the long-term impacts to a species. *See Nat'l Wildlife Fed'n*, 524 F.3d at 935. For species with short life cycles, such as salmon, the agency must consider whether significant negative impacts or habitat loss for a short period could weaken or destroy the species. *Id.* at 934-35 (citation omitted). The NMFS's BiOp is devoid of any analysis regarding whether the short-term impacts to the listed species could hinder their recovery. *See* NMFS 2 at 53 (discussing short-term adverse effects to ESUs and concluding that those effects were unlikely to reduce the long-term survival of the ESUs.) The NMFS's failure to discuss any impacts to the species' recovery renders the NMFS's conclusions arbitrary and capricious because it failed to consider an important aspect of the problem. *See Lands Council*, 629 F.3d at 1074. Upon remand, the NMFS shall conduct a thorough recovery analysis for each of the listed ESUs.

3. Baseline Conditions

"The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process." 50 C.F.R. § 402.02.

The NMFS's BiOp noted that many of the biological requirements of the listed species were not being met under the environmental baseline for many streams and watersheds in Oregon. NMFS

2 at 24. The agency concluded that "[a]ny further degradation of these conditions would significantly reduce the likelihood of survival and recovery of these species due to the status of the environmental baseline." *Id.* The parties now dispute whether the proposed standards constitute an improvement over the previous standards.

The Ninth Circuit has observed that the ESA's prohibition of acts that will "jeopardize" a species' existence means that the ESA intends to prevent agency actions that cause "some deterioration in the species' pre-action condition." *Nat'l Wildlife Fed'n*, 524 F.3d at 930. Accordingly, "where baseline conditions already jeopardize a species, an agency may not take action that deepens the jeopardy by causing additional harm." *Id.*

The Services contend that the new standards improve the baseline because the core coldwater habitat criterion and the IGDO criterion are more stringent than the previous standards. The proposed core coldwater habitat criterion for juvenile rearing and holding reduced the summer maximum temperature for those areas. *See* NMFS 2 at 33-34 (proposing a 16C criterion where the previous maximum was 17.8C); NMFS 127 at 25. The proposed IGDO criterion is also more stringent than the previous standard. NMFS 2 at 30, NMFS 127 at 17. Plaintiff does not dispute that these standards are more stringent.

The parties agree that some temperature criteria would be increased by the proposed standards. The salmon and steelhead juvenile rearing and migration criterion was adjusted from 17.8C to 18C, and the salmon and steelhead spawning criterion was adjusted from 12.8C to 13C.¹¹ The Services characterize the temperature changes as *de minimus* adjustments that can be attributed

¹¹ The bull trout spawning and juvenile rearing criteria was also adjusted from 10C to 12C degrees. This criterion is within the FWS's jurisdiction, and plaintiff does challenge this finding in its claims against the FWS.

to the conversion from Fahrenheit to Celsius. *Ala. Power Co. v. Costle*, 636 F.2d 323, 360 (D.C. Cir. 1979). These minor adjustments are reasonable *de minimus* adjustments.

However, plaintiff asserts that Oregon's proposed 20C standard for salmon and steelhead migration constitutes a deterioration in the baseline because it would apply to salmonid rearing waters that were previously protected by the 17.8C criterion. The Services contend that the new 20C standard for migration is an improvement because all of the rivers where the criterion would apply experienced temperatures that exceeded 20C. *See* NMFS 49 at 5-23. However, because a 17.8C standard previously applied to those waters, any alleged improvement in temperature conditions results from Oregon's failure to achieve its previous standards.

The BiOp noted that many waters in Oregon did not meet the previous water quality standards and would not meet the proposed standards. NMFS 2 at 25. The NMFS explained that Oregon's implementation and attainment of the standards would be necessary to improve the baseline, and that water conditions were likely to improve *if* Oregon did so. *Id.* The Services cannot justify a temperature criterion above the appropriate range for threatened salmonids based on past violations of a lower temperature standard. An agency's consideration of the environmental baseline "does not mean that an action agency can 'stay the course' just because doing so has been shown slightly less harmful to the listed species than previous operations." *Aluminum Co. of Am. v. Adm'r, Bonneville Power Admin.*, 175 F.3d 1156, 1162 n.6 (9th Cir. 1999). Otherwise, any water quality standards would be acceptable so long as they were slightly better than current conditions, thus rewarding Oregon for its failure to attain previous water quality standards. Upon remand, the NMFS shall reconsider the effects of the EPA's approval of Oregon's water quality standards. In doing so, the NMFS shall make its jeopardy analysis on the biological needs of the listed salmonids in the context of the environmental baseline and shall not justify its conclusions based on the simple fact

that attainment of the standards would constitute an improvement in water quality.

4. Cumulative effects

In formulating a BiOp, the Services must "[e]valuate the effects of the action and cumulative effects on the listed species or critical habitat." 50 C.F.R. § 402.14(g)(3). "Effects of the action" include "the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline." *Id.* at § 402.02. Cumulative effects "are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." *Id.* Once the cumulative effects are identified, the agency must determine "whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat." *Id.* at § 402.14(g)(4).

The parties agree that the NMFS identified cumulative effects in its BiOp. The NMFS stated that it was unaware of any specific activities that would "cause greater effects to listed species than presently occurs." NMFS 2 at 52. The NMFS explained that then-existing state rules for timber harvests, agriculture, and rural development were insufficient to protect habitat functions of listed species and may place the species' habitat at risk in the future. *Id.* The NMFS also recognized that those activities were likely to increase as the human population increased. *Id.* However, the NMFS did not discuss whether the identified activities would effect listed species in combination with the proposed standards.

The Services contend that the NMFS was not required to discuss cumulative effects any further because the standards constituted an improvement of conditions for the listed species. As discussed above, the NMFS may not base its determinations on Oregon's prior failures to attain water

quality standards.

Identifying cumulative impacts without further analysis was arbitrary and capricious.

Upon remand, the NMFS shall conduct a thorough cumulative effects analysis that actually analyzes how the new water quality standards would effect the listed species in combination with other activities having an effect on the species.

B. The NMFS's individual conclusions

The survival of salmonids is dependent on the external water temperature of the waters they inhabit. NMFS 275 at 5. Although Pacific Northwest waters have reached temperatures outside the salmonid population's optimal range during summer months, the historical temperature diversity in those rivers and streams provided sufficient cold water to allow salmonids to thrive. *Id.* Accordingly, the EPA chose to set temperature standards based on summer maximums to be protective of conditions at other times of the year based on the expected seasonal decrease in temperature in the waters. NMFS 275 at 18. The NMFS approved the EPA's use of a 7DADM criterion for its temperature standards. NMFS 275 at 19. Depending on the waterbody, the duration of exposure to the summer maximum can vary from one week to over a month. *Id.* at 18.

In deciding whether the NMFS's approval of specific standards were arbitrary or capricious, this court must defer to the technical expertise and experience of the agency unless the agency's decision is without substantial basis in fact. *Earth Island Inst. v. Hogarth*, 494 F.3d 757, 766 (9th Cir. 2007); *see also Marsh*, 490 U.S. at 377 (requiring deference where dispute primarily involves issues of fact and a high level of technical expertise). This court should also presume that the agency used the best data available unless the plaintiff can identify relevant data that the agency failed to consider. *Kandra v. United States*, 145 F. Supp. 2d 1192, 1208 (D. Or. 2001). The relevant data and agency conclusions are briefly summarized below.

1. Salmon and steelhead spawning through fry emergence

The NMFS determined that a 13C 7DADM criterion (which the EPA equates to an 11.5C constant temperature) is not likely to adversely affect listed species. NMFS 2 at 33. This criterion was consistent with the EPA's Temperature Guidance document, and the NMFS concluded that it would provide adequate protections to fish before spawning, during spawning, and during egg incubation. NMFS 2 at 33; NMFS 275 at 25, 31. Salmonid spawning occurs at temperatures between 1-20C, with peak spawning occurring at temperatures between 4-14C. NMFS 147 at 17. Good egg survival for salmonids occurs at 4-12C, and is optimal at 6-10C. NMFS 275 at 16. Reduced viability of gametes occurs at more than 13C. *Id.* Accordingly, a range of temperatures between 5.6C and 12.8C allows for successful spawning. NMFS 119 at 16, 31-38 (noting that proposed criterion is within the optimal or successful range for spawning and egg incubation).

2. Steelhead smoltification

Steelhead "are believed to be the most temperature-sensitive salmonids during smoltification." NMFS 2 at 41. Impairments to steelhead smoltification can occur at constant temperatures above 12-13C. NMFS 275 at 16; NMFS 119 at 7.

Although the EPA recommended a 14C criterion for this use in the Temperature Guidance, the proposed action did not include this standard, using instead a 13C criteria for spawning and fry emergence. *See* NMFS 2; NMFS 275 at 25, 31-32. The NMFS determined that Oregon's 13C standard would adequately protect steelhead smoltification in all rivers except the John Day, where the summer maximum temperature of 20C would be in effect after May 15th. NMFS 2 at 41. The NMFS reasoned that even though it was uncertain when steelhead smolted in the John Day River, it assumed the steelhead would have left the river by May or June. *Id.*; *see* NMFS 275 at 31 (noting that steelhead smoltification occurs in April and May). Based on the proposed standard for

spawning, steelhead would likely be exposed to waters "below or slightly above" 14C during smoltification. NMFS 2 at 41.

3. Salmon and steelhead migration corridors use

The NMFS adopted the EPA's recommendation of a 20C criterion for migrating salmon and steelhead, plus a narrative provision that "requires sufficiently distributed cold water refugia." NMFS 2 at 36; NMFS 275 at 25, 28-29. Oregon designated this criterion to apply in areas where "there is migration habitat but no verifiable rearing use in July and August," and where temperatures would have reached 20C under the natural thermal regime. NMFS 2 at 45; *see also* NMFS 49 at 5-22 (noting that based on preliminary studies in the Snake, Columbia, and Willamette rivers, maximum temperatures likely reached or exceeded 20C in these rivers prior to human alterations).

The NMFS found that sublethal effects to migrating salmonids are possible in the Willamette, Columbia, and Snake Rivers due to localized elevated disease risks and reduced viability of gametes. NMFS 2 at 45-46; *see* NMFS 275 at 16 (noting lethal effects at temperatures of 21-22C, and high disease risk at 18-20C); NMFS 119 (noting migration blockage at temperatures above 21C). Notwithstanding the adverse effects, the NMFS concluded that the EPA's approval of this criterion would not result in jeopardy to listed species. To support its conclusion, the NMFS listed six mitigating factors, including: (1) the limited geographical application of the criterion, (2) the absence or limited application of the criterion to rearing juvenile fish, (3) the provision for cold water refugia, (4) consideration of aspects of water temperature cycles and refugia, (5) the narrative criterion protecting migration without significant adverse effects, and (6) the requirement that the thermal pattern in certain waters reflect the natural seasonal thermal pattern. NMFS 2 at 37. Based on these factors, the NMFS concluded that the "potential adverse effects of this criterion would not be of a magnitude, extent or duration that would pose significant risks to the long-term survival of the listed

[species]." *Id.*

4. IGDO criterion

The NMFS concluded that the EPA's approval of Oregon's 8.0 milligrams per liter (mg/L) criterion for IGDO during active spawning was likely to adversely affect, but not likely to jeopardize the continued existence of listed species. NMFS 2 at 32. The NMFS determined that the IGDO criterion will "prevent high mortality of salmon and steelhead embryos and alevins, but may not provide adequate levels of IGDO for embryos and alevins for listed salmon and steelhead at all times (particularly during the brief period of maximum summer water temperatures) and in all places used for spawning and incubation." *Id.* The NMFS found that the IGDO level was not likely to result in jeopardy because streams meeting the criterion will have only localized¹² areas of low IGDO. *Id.*

One field study concluded that only half of rainbow trout embryos survive at the 8.0 mg/L IGDO concentration with seepage velocities of 100 centimeters per hour (cm/hr). NMFS 2 at 31. Embryos have negligible survival when the mean IGDO fell below 8.0 mg/L, or when the seepage velocities were below 20 cm/hr. *Id.* Conversely, growth and survival of salmonids was "positively correlated" to IGDO concentrations above 8.0 mg/L with seepage velocities of 100 cm/hr. *Id.*

In light of the fact that the NMFS failed to adequately consider cumulative effects, recovery, or the effects of the action on individual ESUs, the court cannot determine whether the NMFS's consideration of these four specific standards was reasonable. Because the court is remanding the BiOp on a number of other grounds, each of which will require the NMFS to reconsider these four specific standards, the court necessarily must require the NMFS to reconsider these and all other water quality standards that encompass the action at issue.

¹² The term "localized" is used repeatedly in the NMFS's BiOp but is not defined. *See, e.g.*, NMFS 2 at 53, 55, and 59.

C. The FWS's no jeopardy and no adverse modification conclusions

Plaintiff raises several challenges to the FWS's jeopardy determinations relating to bull trout in its BiOp. Plaintiff contends that the FWS's BiOp is arbitrary and capricious because it failed to analyze effects of the action on the distinct population segments ("DPSs") of bull trout, failed to consider impacts to migratory bull trout, and approved the 12C criterion for bull trout spawning and rearing despite contrary scientific evidence.

The Services contend that the FWS was only required to conduct its jeopardy analysis as to bull trout in the coterminous United States, rather than separately analyzing DPSs of the bull trout species. The Services also defend the FWS's BiOp based on the FWS's consideration of the best scientific evidence.

The ESA's consultation requirement applies to species that the agency has designated as threatened or endangered 16 U.S.C. § 1536(a). The ESA defines "species" as including "any subspecies of fish or wildlife or plants, and any [DPS] of any species of vertebrate fish or wildlife which interbreeds when mature." *Id.* at § 1532(16). The agency has discretion to list DPSs to enable the agency to "provide different levels of protection to different populations of the same species." *Trout Unlimited v. Lohn*, 559 F.3d 946, 950 (9th Cir. 2009) (citation omitted).

The FWS initially listed three DPSs of bull trout as threatened, the Klamath River, the Columbia River, and the Jarbidge River DPSs. 63 Fed. Reg. 31,647 (June 10, 1998); 64 Fed. Reg. 17,110 (Apr. 8, 1999). In November 1999, the FWS listed as threatened "all populations of bull trout within the coterminous United States" because two remaining DPSs of bull trout were also deemed threatened. 64 Fed. Reg. 58,910 (Nov. 1, 1999); 50 C.F.R. § 17.11(h). The 1999 final listing explains that the five population segments of bull trout will be considered distinct for the purposes of consultation and recovery, and will serve as "interim recovery units in the absence of an approved

recovery plan." 64 Fed. Reg. at 58,912.

In its BiOp, the FWS recognized the five DPSs of bull trout, of which only two DPSs are present in Oregon's waters. FWS 2 at 20. The FWS explained that because the DPSs of bull trout meet the Services' policy requirements for distinct vertebrate populations, "analyses for compliance with section 7(a)(2) of the ESA are completed at the DPS scale." *Id.*

The FWS then described the general biological and geographic needs of bull trout, including specific data regarding the Columbia River DPS and Klamath River DPS. FWS 2 at 21-27. The FWS observed that the Klamath River DPS occupies only 34.1 to 38.2 stream kilometers in the Klamath Basin, and six of its seven subpopulations are at risk of extirpation, whereas the Columbia River DPS includes 141 subpopulations. *Id.* at 21. After discussing the effects of the criterion on bull trout generally, the FWS concluded that the criterion may affect, but was not likely to adversely affect the two DPSs combined. *Id.* at 53-59, 77. In making that finding, it does not appear that the FWS actually considered the DPSs individually and did not account for the precarious condition of the Klamath River DPS. The FWS now argues that it was required to conduct its jeopardy analysis only as to bull trout in the coterminous United States, rather than separately analyzing the two DPSs.

In accordance with the coterminous listing of bull trout, the FWS is required to consider the two DPSs as distinct for purposes of consultation and recovery. 64 Fed. Reg. at 58,912. Upon remand, the FWS must do so. Because the FWS failed to consider the DPSs as distinct, the FWS must necessarily reconsider the effects of the 12C bull trout criterion and the effects of the 20C Lahontan and Redband Trout criterion as it relates to bull trout.¹³ However, additional discussion

¹³ In light of federal defendants' concession at oral argument that remand of the two BiOps would necessarily require new incidental take statements, the court does not reach plaintiff's claims regarding the incidental take statements. It should suffice to say that the court expects the new incidental take statements to be completed in accordance with the guidance found in *Or. Natural Res. Council v. Allen*, 476 F.3d 1031 (9th Cir. 2007).

of the 12C criterion is warranted.

In addition to the FWS's failure to adequately consider the distinct DPS's, plaintiff contends Oregon's water quality standards are not adequately protective of bull trout, which are especially dependent on cold water. Bull trout are particularly vulnerable to warm waters in spawning and rearing areas. FWS 419 at 8. Bull trout migrate during spring and summer, and generally spawn from August through October (although some spawning can occur as early as July in certain streams). *Id.* at 14; FWS 2 at 24, 52. To allow bull trout spawning, waters must be at or below 9C, with peak spawning at less than 7C. FWS 137 at 00194; FWS 179 at 01809; FWS 188 at 02192; FWS 419 at 17. Studies cited by the FWS indicated that bull trout require waters at 2-6C for optimal egg incubation and survival and will suffer substantially reduced egg survival at 6-8C. FWS 2 at 23-24; FWS 179 at 01809; FWS 419 at 17. The EPA's Temperature Guidance also recommended a 9C criterion for bull trout spawning. FWS 419 at 25-26.

Notwithstanding this data, the FWS concluded that Oregon's 12C criterion would not adversely affect the bull trout DPSs and that any adverse effects would be "discountable." FWS 2 at 53. According to the FWS's Consultation Handbook, "[d]iscountable effects are those extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur." FWS 257 at 06673. In this case, the scientific data cited by the FWS does not establish that adverse effects to the bull trout DPSs are extremely unlikely if habitat waters exceed temperatures above 9C during spawning, or above 6C during egg incubation.

The FWS justified its approval of the 12C criterion on the assumption that the bull trout's waters would experience at least a three degree decrease in temperature by spawning season. FWS 2 at 52. However, some rivers do not cool by the requisite three degrees by the first of September

and some bull trout spawn in August. *See* FWS 140 at 01230, 01236, 1247-92; FWS 142 at 01325-01380.

While this court generally must defer to the agency's scientific expertise, deference is not appropriate if the agency considered factors that Congress did not intend it to consider. *Lands Council*, 629 F.3d at 1074. In situations where Congress has made clear that an agency's finding must be based on science alone, an agency's decision that "was in any material way influenced by political concerns" cannot be upheld. *Earth Island Inst.*, 494 F.3d at 768. Here, the FWS was tasked to make its jeopardy determination based on the "best scientific and commercial data available." 16 U.S.C. § 1536(a)(2). The record suggests that the FWS may have considered inappropriate factors outside what could be considered the best scientific data available.

The relevant documents include a string of emails between employees for the FWS and the EPA that disclose the consideration of policy factors not part of the scientific analysis Congress has mandated be applied. These emails discuss the proper temperature criteria for the protection of bull trout in rearing and spawning areas during the development of the Temperature Guidance.¹⁴ FWS 569. The FWS initially supported an 11C criterion noting that the proposed 12C "is pushing the upper temperature limit farther than [the FWS] can support." FWS 569 at 10882; *see also* FWS 80 at 00926 (noting that the FWS believed that only an 11C criterion would be sufficiently protective of early spawning). In response to the FWS's indication that it would not support a 12C criterion, an EPA employee suggested that the FWS reconsider its recommendation. FWS 569 at 10881-82.

The EPA employee suggested that 11C was too conservative, might set unattainable expectations, and ultimately could undermine the credibility of the water quality standards program.

¹⁴ In *NWEA v. EPA*, Civil No. 05-1876-HA, 2008 WL 111054, at *1-2 (D. Or. Jan. 7, 2008), this court noted the importance of the Temperature Guidance in influencing later agency decisions.

Id. at 10880. The EPA employee emphasized the importance of the Services' support for the Temperature Guidance to protect the species and the credibility of the agencies. *Id.* at 10881. The FWS employee forwarded the EPA's recommendation to other FWS employees and stated that this situation is where "science and policy collide and so we need to incorporate the 'feasibility' standard as well as the biological standard in our position." *Id.* at 10879. Some FWS employees wanted to reconsider the standard in light of the issues raised by the EPA, while others adhered to the scientific bases for the 11C criterion. *Id.* at 10878-79; FWS 581. Ultimately, the FWS stated that the 12C criterion was the "preferred temperature reported in the scientific literature" even though it was "outside the optimal temperature range." FWS 2 at 51.

By considering factors other than the best available commercial and scientific information, the FWS "relied on factors Congress did not intend it to consider." *Lands Council*, 629 F.3d at 1074. Accordingly, the court concludes that extra-scientific considerations have rendered the FWS's determinations arbitrary and capricious. Upon remand, the FWS shall only consider those factors Congress intended the agency to consider.

Conclusion

For the foregoing reasons, plaintiff's Motion for Partial Summary Judgment on the Endangered Species Act claims [207] is GRANTED, plaintiff's Motion for Partial Summary Judgment on the Clean Water Act claims [212] is GRANTED IN PART and DENIED IN PART, defendants' Cross-Motion for Partial Summary Judgment on the Endangered Species Act claims [254] is DENIED, and defendants' Cross-Motion for Summary Judgment on the Clean Water Act claims [260] is GRANTED IN PART AND DENIED IN PART.


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The parties shall confer regarding remedies and shall propose a briefing schedule, if necessary, to resolve any disputes. A joint status report is due April 6, 2012.

IT IS SO ORDERED.

DATED this 28th day of February, 2012.



JOHN V. ACOSTA
United States Magistrate Judge